Building a Culture of Quality Improvement at Butaro Cancer Center of Excellence in Rwanda

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BACKGROUND

- As access to cancer care expands in sub-Saharan Africa, it is critical to foster a culture of continuous cancer care quality improvement (QI).
- This includes teaching strategies for identifying key metrics, assessment of outcomes, examination of gaps between evidence and practice, and design and implementation of interventions to close those gaps.
- Butaro Cancer Center of Excellence (BCCOE) is Rwanda's first public cancer facility. Care is primarily provided by non-oncologists who have received training in cancer care.

OBJECTIVES

- We describe design and implementation of a QI training and mentorship program for clinicians at BCCOE, and early evaluation findings

METHODS

Curriculum:

- BCCOE QI curriculum included didactic training, mentored QI projects and leadership development
- All oncology staff participated in a one-day didactic QI training
- Three BCCOE clinicians served as QI mentors and received an additional 2-day intensive training and ongoing coaching by Rwanda- and US-based QI coaches
- Mentors worked with clinician colleagues and coaches to devise and implement metric-based QI projects

Evaluation:

- Two focus group discussions (FGDs) assessed staff QI needs, experiences and perspectives pre-project (n=18)
- Surveys assessed staff QI self-efficacy and knowledge immediately before and after 1-day didactic trainings

RESULTS - BASELINE FOCUS GROUPS

Perceptions of Quality Challenges

- *Structural challenges were commonly raised, e.g.: "That we have not yet reached this [quality] level involves a lot of things such as limited means to acquire these drugs; staff competency; updated equipment." (FGD participant)*

Perceptions of Current QI at BCCOE

- *"The existing challenge is that we do not take time to analyze and assess the stage we have reached. People take a project, develop strategies but do not take time to analyze and assess the situation. They do things as usual." (FGD participant)*

Suggestions/Needs for QI at BCCOE

- *"My wish is that a cancer patient coming at Butaro should receive all the services they need including diagnosis, staging and medication. They should receive quality services for all they need and services should take place at same location, meaning in a cancer center to avoid that they get lost by trying to know different places where to get services." (FGD participant)*
- *"The quality we deliver depends on the staff. The number of staff is small and sometimes we delay patients who come to see us due to that their number was bigger than the number of staff." (FGD participant)*

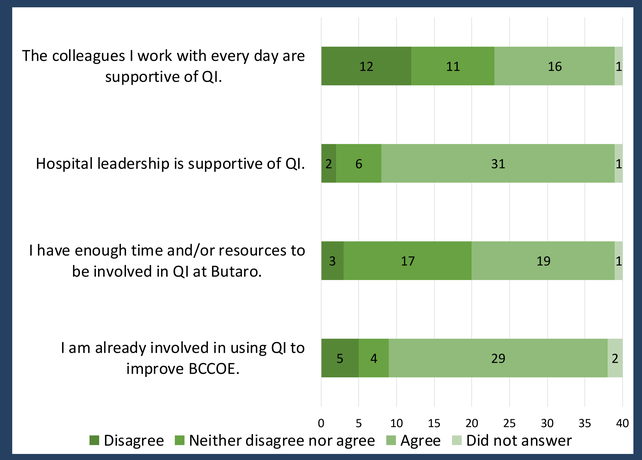
RESULTS – PRE/ POST SURVEYS

- 40 staff members took the pre-training survey; 37 took both pre- and post-training surveys
- 28 were nurses; 2 were doctors; 6 were other staff members; 4 did not respond about their role

Table 1. QI self-efficacy, interest and knowledge pre- versus post-training

Statements about baseline attitudes surrounding QI	Average Pre-Training (n=36)	Average Post-Training (n=36)	p-value for paired t-tests
I understand the concepts of QI.	3.81 (SD=0.98)	4.56 (SD=0.50)	<. 001
I feel confident in applying QI methods.	3.67 (SD=1.10)	4.44 (SD=0.61)	<. 001
I have enough training in QI to be able to engage in QI initiatives.	2.42 (SD=1.23)	3.75 (SD=0.77)	<. 001
I am interested in being more engaged in QI at BCCOE.	4.61 (SD=0.69)	4.72 (SD=0.46)	0.32
Average % Correct Knowledge Score (n=37)	64%	73%	0.001

Figure 1. Pre-training responses regarding institutional support and engagement regarding QI



QI PROJECTS

Projects are led by QI mentors and involve most oncology staff:

1. "Increasing use of indicated imaging for breast cancer staging prior to treatment initiation"
2. "Reducing wait times for adult patients admitted for chemotherapy"
3. "Increasing double-checking of chemotherapy administration on the pediatric oncology ward"

Table 2. Staff's perception that "we can successfully make changes to the way we deliver care," before vs after training

Perception that staff can make change	Pre-training (n=37)	Post training (n=37)	p-value *Comparing not at all/somewhat to a great degree, using two-tailed Chi-sq. test.*
Not at all	0	0	0.61
Somewhat	5 (13.5%)	5 (13.5%)	
To a great degree	27 (73.0%)	32 (86.5%)	
Not answered	5 (13.5%)	0	

CONCLUSION

- BCCOE's QI program is engaging oncology clinicians as QI leaders and participants, building a culture of team-based QI.
- Didactic training increased staff self-efficacy and knowledge, facilitating successful launch of projects.
- Future assessments will examine staff experience, attitudes and knowledge after project engagement.

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